

YASH GUPTA

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EDUCATION

MS in ECE Engineering

University of Colorado, Boulder

August 2018 – Present [Expected 2020]

GPA: 4.0

BE in Electronics

D.J. Sanghvi College Of Engineering, Mumbai, India

July 2013-August 2017

CGPA : 8.24/10

PROFESSIONAL EXPERIENCE

BETiC (IIT Bombay), Mumbai

August 2017-July 2018

Project Research Assistant

Biomedical engineering and technology incubation Centre (BETiC) in IIT Bombay is a **ISO 13485** certified lab facilitating rapid translation of innovative ideas from doctors into high-quality low-cost medical devices suitable for the local population. My roles involved:

- *Developing embedded systems*, Testing code and performing simulations, PCB Designing and milling, Soldering and Testing of circuits.
- *Mentoring* Medical Device competitions organized by BETiC.

RESEARCH PROJECTS

Diabetic Foot Screening Device

[Patent Pending]

Sept 2017- Jan 2018

Developed a Diabetic Foot Stiffness Device for sensing numbness in foot due to diabetic foot neuropathy. Utilized a **TI-MSP 432(Cortex M4)** as the microcontroller and **Python GUI** was used to log data in an excel sheet.

ACADEMIC PROJECTS

Bluetooth Low Energy (BLE) entry registration system [June 2016-April 2017]

Utilized Cypress Semiconductors PSoC4200 and RPI to mark and record attendance on a server.

Circular Buffer with custom UART drivers and TSI Touch interface [Nov-2018]

Wrote custom UART drives and made a Touch pad interface to store user data in Circular Buffers.

Real Time ADC logging with DMA using Double Buffer [Dec 2018]

Differential input ADC logging with implicit lookup tables for approximation of dBFS values.

Hammer Board [Sept 2018]

Load Testing for SMPS.

NON ACADEMIC PROJECTS

LinkedLists and Queue implementation in Linux Command Line [Sept 2018-Oct 2018]

Incorporated data storage and retrieval using data structures.

Finite State Machine implementation for Traffic Lights [Nov 2018]

Look table type implementation of FSM with state and event driven entries.

LRU Algorithm implementation in C [Jan 2019]

Least Recently used algorithm with arrays in C.

TECHNICAL SKILLS

C, Python, Git, CCS, Kinetis, STM32, NXP, GCC, Linux, Raspberry Pi, GDB, FTP, BLE, PSoC, IoT, Make, PCB Design, Altium, Mentor Graphics, PCB Milling, LPKF, Keil, OpenCV, UART, Function Generators, Oscilloscopes, DMA, CUnit, Linked Lists, Queues, FSM, LRU.

CERTIFICATIONS AND COURSES

- I. **ARM University Program Training Course** on Embedded System Design and Programming.
- II. **Cypress University Alliance Training Program** on Internet of Things (IoT)
- III. **Embedded Systems and Internet of Things (IoT)**
- IV. Fundamentals of Audio and Music Engineering: Part 1: Musical and Sound Electronics from University Of Rochester via Coursera.

AWARDS

- I. Stood **1st** in the **Medical Devices Hackathon (MEDHA 2017)** - A national level medical device innovation competition.
- II. Secured **2nd** position in **Line Follower Competition** (Abhiyantriki 2015) at inter college level.